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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/033,052	12/26/2001	Timo Vataja	460-010812-US(PAR	6806
2512	7590	09/19/2006	EXAMINER	
PERMAN & GREEN 425 POST ROAD FAIRFIELD, CT 06824			ADDY, ANTHONY S	
			ART UNIT	PAPER NUMBER
			2617	
DATE MAILED: 09/19/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/033,052

Applicant(s)

VATAJA, TIMO

Examiner

Anthony S. Addy

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 June 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

1. The Art Unit location of your application in the USPTO has changed. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Art Unit 2617.

2. This action is in response to applicant's amendment filed on June 23, 2006. New **claims 25-26** have been added and **claims 1-26** are now pending in the present application.

Response to Arguments

3. Applicant's arguments with respect to **claims 1-26** have been considered but are moot in view of the new ground(s) of rejection.

Claim Objections

4. **Claims 1** and **5** are objected to because of the following informalities:
- a) On **line 2** of **claim 1**, replace "message_within" with -- message_within --
 - b) On **line 21** of **claim 1**, replace "determine thee" with -- determine the --
 - c) On **line 3** of **claim 5**, replace "data base" with -- database --
- Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 22, 25 and 26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With respect to claim 22, applicant recites the limitation "the service center" on line 6 of claim 22, however there is insufficient antecedent basis for this limitation in the claim.

With respect to claim 25, applicant recites the limitation "the first satellite positioning element" on line 14 of claim 25, however there is insufficient antecedent basis for this limitation in the claim.

With respect to claim 26, applicant recites the limitation "the first satellite positioning element" on line 12 of claim 26, however there is insufficient antecedent basis for this limitation in the claim.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

7. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

8. Claims 1, 2, 4-13 and 15-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Smith et al., U.S. Patent Number 6,389,287 (hereinafter Smith)**, and further in view of **Willars et al., U.S. Patent Number 5,946,630 (hereinafter Willars)**.

Regarding claims 1, 4, 16 and 17, Smith teaches a system and method for transmitting a location-based message within a communication system, wherein for the message at least one recipient is defined, and the message is transmitted from a wireless communication device of a sender to a wireless communication device of one or more said recipients via the communication system (see abstract, col. 1, lines 48-67 and col. 5, lines 47-63), and the method comprises at least the following steps: a positioning step comprising using satellite positioning for determining the position of the sender's wireless communication device (see col. 4, lines 40-45 and col. 5, lines 41-44), a range definition step for defining the message transmission range based on the current position of the sender's wireless communication device determined by using satellite positioning (see col. 1, lines 57-63 and col. 5, lines 41-65), a step of sending the message from the wireless communication device of the sender to the communication system (see col. 3, lines 31-46, col. 6, lines 16-44 and col. 6, lines 65-67), a detection step for detecting whether the recipient of the message is located within the message transmission range comprising using satellite positioning to determine the location of the recipient (see col. 4, lines 40-45 and col. 5, lines 41-65), and a presentation step, wherein via the communication system, the message is presented in the wireless communication device of the recipient, in case said recipient of the message is located within the message transmission range (see col. 1, lines 57-63 and col. 5, lines 54-65).

Smith fails to explicitly teach a validity period definition step for defining a validity period for the message.

However defining a message validity period specifying a validity period of a transmitted message is very well known in the art as taught for example by Willars.

Willars teaches defining a message validity period, specifying a validity period of a message when a message originator sends a short message to a recipient (see col. 4, lines 45-51).

It would therefore have been obvious to one of ordinary skill in the art at the time of the invention to modify Smith with the teaching of defining a message validity period, specifying a validity period of a message of Willars, in order to conserve memory space by discarding messages at the end of a specified validity period defined by a message originator as taught by Willars (see col. 4, lines 45-51).

Regarding claim 2, Smith in view of Willars teaches all the limitations of claim 1. Smith further teaches a method, wherein a limited group of recipients is defined as the recipient of the message (see col. 1, lines 52-54 and col. 5, lines 49-52).

Regarding claim 5, Smith in view of Willars teaches all the limitations of claim 1. Smith further teaches a method, in which messages are transmitted in at least one wireless communication system, and said communication system is provided with at least one data base into which the messages to be transmitted are stored at said storage step (see col. 5, lines 20-41).

Regarding claim 6, Smith in view of Willars teaches all the limitations of claim 1. Smith further teaches a method, wherein the location-based message is stored into the recipient's wireless communication device to be presented in said presentation step (see col. 4, lines 14-40 and Fig. 2; shows a portable subscriber unit 122 including

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memory 212 [i.e. Smith inherently teaches the location-based message is stored into the recipient's wireless communication device to be presented in said presentation step, since Smith teaches the recipient's wireless communication device (i.e. portable subscriber unit 122) includes a memory 212]).

Regarding claims 7 and 18, Smith in view of Willars teaches all the limitations of claims 1 and 16. Smith further teaches a method, in which the sender's wireless communication device comprises a mobile communication device of a mobile communication system (see col. 5, lines 50-55 and Fig. 1; shows a plurality of portable subscriber units 122), and in which mobile communication system at least one base station is used in order to arrange communication between the wireless communication device and the mobile communication system (see col. 3, lines 10-18 and Fig. 1), and in said positioning step the sender is positioned on the basis of said base station (see col. 5, lines 35-45).

Regarding claim 8, Smith in view of Willars teaches all the limitations of claim 7. Smith further teaches a method, wherein the message transmission range is defined to be that area of the base station within which the wireless communication device of the sender communicates (see col. 1, lines 57-63 and col. 5, lines 41-65).

Regarding claim 9, Smith in view of Willars teaches all the limitations of claim 7. Smith further teaches a method, wherein the message transmission area is defined to be the area of all those base stations transmitting a signal that can be received by the sender's wireless communication device (see col. 3, lines 10-25, *col. 1, lines 57-63 and col. 5, lines 41-65).

Regarding claim 10, Smith in view of Willars teaches all the limitations of claim 1. Smith further teaches a method, wherein the positioning of the sender is performed by using a satellite positioning system (see col. 4, lines 40-45 and col. 5, lines 41-45).

Regarding claim 11, Smith in view of Willars teaches all the limitations of claim 1. Smith further teaches a method, in which a communication connection is set up from the sender's wireless communication device to a wireless local area network, and the sender is positioned by using the wireless local area network (see col. 3, lines 37-41, col. 4, lines 40-45 and col. 5, lines 41-45).

Regarding claim 12, Smith in view of Willars teaches all the limitations of claim 1. Smith further teaches a method, in which the sender's wireless communication device comprises wireless local communication means, and the sender is positioned by using said wireless local communication means (see col. 3, lines 37-41, col. 4, lines 40-45 and col. 5, lines 41-45).

Regarding claim 13, Smith in view of Willars teaches all the limitations of claim 1. Smith further teaches a method, wherein a certain geographical area is defined as the message transmission range (see col. 5, lines 55-65 [i.e. the distance criterion defined as the distance between the message originator location and the message recipient location reads on the limitation "a certain geographical area is defined as the message transmission range" since Smith teaches if the message recipient is out of range (i.e. does not meet the distance criterion) the message (i.e. the communication) is routed and stored elsewhere]).

Regarding claim 15, Smith in view of Willars teaches all the limitations of claim 1. Smith further teaches a method, wherein said detection phase is performed upon setting up a communication connection between the recipient's wireless communication device and the base station (see col. 4, lines 30-45 and col. 5, lines 41-60).

Regarding claim 19, Smith in view of Willars teaches all the limitations of claim 16. Smith further teaches a system, comprising a satellite positioning system, and means for positioning the sender by means of said satellite positioning system (see col. 4, lines 40-45 and col. 5, lines 41-45).

Regarding claim 20, Smith in view of Willars teaches all the limitations of claim 16. Smith further teaches a system, comprising a wireless local area network, and means for positioning the sender by means of said wireless local area network (see col. 3, lines 37-41, col. 4, lines 40-45 and col. 5, lines 41-45).

Regarding claim 21, Smith in view of Willars teaches all the limitations of claim 16. Smith further teaches a system, comprising wireless local communication means, and means for positioning the sender by means of said wireless local communication means (see col. 3, lines 37-41, col. 4, lines 40-45 and col. 5, lines 41-45).

Regarding claim 22, Smith teaches a system for transmitting a location-based message (see col. 5, lines 47-55 and Fig. 1), comprising; means for transferring a message transmitted from a sender's wireless communication device to a wireless communication device of one or more recipients, the sender's wireless communication device being operative to transmit the message to the system (see col. 1, lines 50-57, col. 3, lines 60-67 and Fig. 2; shows a transmitter 209), wherein the system comprises

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at least: satellite positioning means for determining the position of the sender's wireless communication device (see col. 5, lines 41-45 and Fig. 3; shows a location receiver 334 [e.g. Global Positioning System (GPS) receiver which reads on a satellite positioning means]), means for determining the message transmission range from the message to be transmitted defined on the basis of the position of the sender's wireless communication device (see col. 1, lines 57-63 and col. 5, lines 41-65), detection means for detecting whether the recipient of the message is located within the message transmission range, the detecting means comprising satellite positioning means (see col. 1, lines 57-63, col. 5, lines 41-65, and col. 4, lines 40-45), and presentation means for presenting the message in the recipient's wireless communication device, in case said recipient of the message is located within the message transmission range (see col. 1, lines 57-63, col. 5, lines 54-65 and Fig. 2; shows a user interface including display 216 [i.e. reads on a presentation means for presenting the message in the recipient's wireless communication device]).

Smith fails to explicitly teach a message service center and the message service center comprises; means for detecting a validity period for the message.

Willars teaches a Short Message Service Center (SMS-C) that stores and forwards an originated short message to an intended destination mobile subscriber (see col. 4, lines 1-24 and Fig. 1; shows a Short Message Service Center [SMS-C 24]) and means for defining a message validity period, specifying a validity period of a message (see col. 4, lines 45-51).

It would therefore have been obvious to one of ordinary skill in the art at the time of the invention to modify Smith with the teaching of defining a message validity period, specifying a validity period of a message of Willars, in order to store and forward a message to an intended destination mobile subscriber and conserve memory space by discarding messages at the end of a specified validity period defined by a message originator as taught by Willars (see col. 4, lines 1-24 and col. 4, lines 45-51).

Regarding claim 23, Smith teaches a wireless communication device (see col. 5, lines 50-55 and Fig. 1; shows a plurality of portable subscriber units 122 [i.e. reads on a wireless communication device]), comprising means for determining a recipient (see col. 1, lines 48-57 and col. 5, lines 47-57), a satellite positioning receiver configured to determine the position of the wireless communication device (see col. 4, lines 40-45 and Fig. 2; shows a portable subscriber unit 122 including a location receiver 234 [e.g. Global Positioning System (GPS) receiver which reads on a satellite positioning receiver]), means for transmitting a location-based message from a wireless communication device of one or more recipients (see col. 1, lines 50-57, col. 3, lines 60-67 and Fig. 2; shows a transmitter 209 [i.e. reads on a means for transmitting a location-based message]), and definition means for defining the message transmission range based on the position of the sender's wireless communication device (see col. 1, lines 57-63 and col. 5, lines 41-65).

Smith fails to explicitly teach a means for defining a validity period.

However defining a message validity period specifying a validity period of a transmitted message is very well known in the art as taught for example by Willars.

Willars teaches defining a message validity period, specifying a validity period of a message when a message originator at a mobile station desires to send a short message to a recipient (see col. 4, lines 45-51).

It would therefore have been obvious to one of ordinary skill in the art at the time of the invention to modify Smith with the teaching of defining a message validity period, specifying a validity period of a message of Willars, in order to conserve memory space by discarding messages at the end of a specified validity period defined by a message originator as taught by Willars (see col. 4, lines 45-51).

Regarding claim 24, Smith teaches a wireless communication device (see col. 5, lines 50-55 and Fig. 1; shows a plurality of portable subscriber units 122 [i.e. reads on a wireless communication device]), comprising: a receiver for receiving from a sender's wireless communication device, via a communication system, a location-based message in which the recipient of the message has been defined (see col. 1, lines 50-57, col. 3, lines 60-67 and Fig. 2; shows a receiver 208), wherein the wireless communication device further comprises; a memory for storing said message (see col. 4, lines 14-40 and Fig. 2; shows a memory 212), a detecting element comprising a satellite positioning receiver for determining the position of the wireless communication device (see col. 4, lines 40-45 and Fig. 2; shows a portable subscriber unit 122 including a location receiver 234 [e.g. Global Positioning System (GPS) receiver which reads on a detecting element comprising a satellite positioning receiver]), said detecting element being configured to detect whether the recipient of the message is located within the message transmission range defined on the basis of the position of the

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sender's wireless communication device (see col. 1, lines 57-63 and col. 5, lines 41-65), and an information presentation element configured to present the message in the wireless communication device, in case said recipient of the message is located within the message transmission range (see col. 1, lines 57-63, col. 5, lines 54-65 and Fig. 2; shows a user interface including display 216 [i.e. reads on an information presentation element])).

Smith fails to explicitly teach an examining element configured to examine a validity period of the message.

However defining a message validity period specifying a validity period of a transmitted message is very well known in the art as taught for example by Willars.

Willars teaches defining a message validity period, specifying a validity period of a message when a message originator at a mobile station desires to send a short message to a recipient (see col. 4, lines 45-51).

It would therefore have been obvious to one of ordinary skill in the art at the time of the invention to modify Smith with the teaching of defining a message validity period, specifying a validity period of a message of Willars, in order to conserve memory space by discarding messages at the end of a specified validity period defined by a message originator as taught by Willars (see col. 4, lines 45-51).

Regarding claims 25 and 26, Smith teaches a wireless communication device and system for transmitting a location-based message (see col. 5, lines 47-55 and Fig. 1; shows a plurality of portable subscriber units 122 [i.e. reads on a wireless communication device]), comprising: an input element configured to determine the

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recipient of a message (see col. 1, lines 48-57, col. 4, lines 4-9, col. 5, lines 47-57 and Fig. 2; shows a user interface 214 including keyboard 220 [i.e. reads on an input element]), a transmitter configured to transmit the message from a sender's wireless communication device to a wireless communication device of one or more recipients via the system (see col. 1, lines 50-57, col. 3, lines 60-67 and Fig. 2; shows a transmitter 209), wherein the system further comprises at least: a first satellite positioning receiver configured to determine the position of the sender's wireless communication device (see col. 4, lines 40-45 and Fig. 2; shows a portable subscriber unit 122 including a location receiver 234 [e.g. Global Positioning System (GPS) receiver which reads on a first satellite positioning receiver]), a range definition element configured to define the message transmission range based on the current position of the sender's wireless communication device by using the position determined by the first satellite positioning element (see col. 1, lines 57-63 and col. 5, lines 41-65), a detecting element, configured to detect whether the recipient of the message is located within the message transmission range, comprising a second satellite positioning receiver for determining the position of the recipient's wireless communication device (see col. 1, lines 57-63, col. 5, lines 41-65, col. 4, lines 40-45 and Fig. 2; shows a portable subscriber unit 122 including a location receiver 234 [e.g. Global Positioning System (GPS) receiver which reads on a second satellite positioning receiver]), and a presentation element configured to present the message in the recipient's wireless communication device, in case said recipient of the message is located within the message transmission range

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(see col. 1, lines 57-63, col. 5, lines 54-65 and Fig. 2; shows a user interface including display 216 [i.e. reads on an presentation element]).

Smith fails to explicitly teach a defining element configured to define a validity period for the message.

However defining a message validity period specifying a validity period of a transmitted message is very well known in the art as taught for example by Willars.

Willars teaches defining a message validity period, specifying a validity period of a message when a message originator at a mobile station desires to send a short message to a recipient (see col. 4, lines 45-51).

It would therefore have been obvious to one of ordinary skill in the art at the time of the invention to modify Smith with the teaching of defining a message validity period, specifying a validity period of a message of Willars, in order to conserve memory space by discarding messages at the end of a specified validity period defined by a message originator as taught by Willars (see col. 4, lines 45-51).

9. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Smith et al., U.S. Patent Number 6,389,287 (hereinafter Smith)**, and **Willars et al., U.S. Patent Number 5,946,630 (hereinafter Willars)** as applied to claim 1 above, and further in view of **Bhatia, U.S. Patent Number 6,052,591 (hereinafter Bhatia)**.

Regarding claim 3, Smith in view of Willars teaches all the limitations of claim 1. Smith in view of Willars fails to explicitly teach, wherein anyone located within the message transmission range is defined as the recipient of the message.

In an analogous field of endeavor, Bhatia teaches wherein each mobile station determined to be located within a specified geographic area is defined as the recipient of a short message (see abstract and col. 12, lines 36-49).

It would therefore have been obvious to one of ordinary skill in the art at the time of the invention to modify Smith and Willars with Bhatia to include a method, wherein anyone located within the message transmission range is defined as the recipient of the message, in order for a telecommunications user wishing to transmit a message to all mobile stations located within a designated geographic area, to route an SMS message encapsulating the MSISDN number assigned to that particular geographic area as the destination address as taught by Bhatia (see col. 12, lines 36-49).

10. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Smith et al., U.S. Patent Number 6,389,287 (hereinafter Smith)**, and **Willars et al., U.S. Patent Number 5,946,630 (hereinafter Willars)** as applied to claim 1 above, and further in view of **Gilhousen, U.S. Patent Number 6,195,046 (hereinafter Gilhousen)**.

Regarding claim 14, Smith in view of Willars teaches all the limitations of claim 1. Smith in view of Willars fails to explicitly teach, wherein said detection step is repeated at intervals.

In an analogous field of endeavor, Gilhousen teaches a method of determining a location of a mobile station at predetermined repeated time intervals in order to maintain current position information on the mobile station as it moves within the cellular system (see col. 17, lines 20-26 and col. 18, lines 16-23).

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It would therefore have been obvious to one of ordinary skill in the art at the time of the invention to modify Smith and Willars with Gilhousen to include a method, wherein said detection step is repeated at intervals, in order to maintain current position information on a mobile station as it moves within a wireless communication system as taught by Gilhousen (see col. 17, lines 20-26 and col. 18, lines 16-23).

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Orwant et al., U.S. Publication Number 2005/0227711 A1 discloses method and apparatus for creating, directing, storing and automatically delivering a message to an intended recipient upon arrival of a specified mobile object at a designated location.

Lohtia, U.S. Publication Number 2005/0186969 A1 discloses location based messaging.

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not

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mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anthony S. Addy whose telephone number is 571-272-7795. The examiner can normally be reached on Mon-Thur 8:00am-6:30pm.

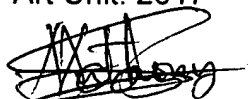
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duc M. Nguyen can be reached on 571-272-7503. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Application/Control Number: 10/033,052

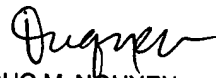
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A handwritten signature in black ink, appearing to read "Anthony S. Addy", written over a horizontal line.

Anthony S. Addy

September 13, 2006

A handwritten signature in black ink, appearing to read "Duc M. Nguyen", written in a cursive style.

DUC M. NGUYEN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600